

CLAIMS

What is claimed is:

1. A line generating device comprising:
 - a housing;
 - a support assembly mounted within the housing;
 - a light source mounted on the support assembly;
 - a lens mounted on at least one of the support assembly and the light source, the lens receiving light and projecting the light in the shape of a fan within a plane;
 - a first level vial mounted on the support assembly, wherein the first level vial is coplanar or perpendicular to the plane; and
 - a magnet mounted on the support assembly.
2. The device of Claim 1, further comprising a second level vial substantially perpendicular to the first level vial.
3. The device of Claim 2, wherein one of the first and second level vials is adjustable relative to the other of the first and second level vials.
4. The device of Claim 2, wherein the second level vial is mounted on the support assembly.
5. The device of Claim 4, wherein a compression plug is disposed between the support assembly and one of the first and second level vials.
6. The device of Claim 1, further comprising a pin assembly comprising a body, a metal portion disposed in the body and a pin connected to the body.
7. The device of Claim 6, wherein the pin has a flat portion.

8. The device of Claim 6, wherein the metal portion is pivotally attached to the body, and the pin is attached to the metal portion, the pin being movable between a retracted position and an extended position.
9. The device of Claim 8, further comprising a pin magnet disposed on the body for magnetically engaging the pin in the retracted position.
10. The device of Claim 6, wherein, when the pin assembly is connected to the housing, the pin is coplanar with the plane.
11. The device of Claim 6, wherein, when the pin assembly is connected to the housing, the pin is disposed at the intersection of the plane and a center plane bisecting the housing and being substantially perpendicular with the plane.
12. The device of Claim 6, wherein the magnet magnetically engages with the metal portion.
13. The device of Claim 1, further comprising a mount assembly comprising:
 - a body having a first hole;
 - at least two L-shaped legs extending through the first hole, the legs being bound together and being rotationally fixed by features on the body;
 - a cam ring disposed on the body, the cam ring having at least two inclined slots for correspondingly receiving the at least two legs, and a force member for putting force on the at least two legs.
14. The device of Claim 13, wherein the mount assembly further comprises a metal portion disposed on the cam ring for magnetically engaging the magnet.
15. The device of Claim 13, wherein one of the inclined slots has protrusions disposed along the length of the slot.

16. The device of Claim 13, wherein the force member is a ball bearing.
17. A mount assembly comprising:
 - a body having a first hole;
 - at least two L-shaped legs extending through the first hole, the legs being bound together and being rotationally fixed by features on the body;
 - a cam ring disposed on the body, the cam ring having at least two inclined slots for correspondingly receiving the at least two legs, and a force member for putting force on the at least two legs.
18. The mount assembly of Claim 17, wherein the mount assembly further comprises a metal portion disposed on the cam ring.
19. The mount assembly of Claim 17, wherein one of the inclined slots has protrusions disposed along the length of the slot.
20. The mount assembly of Claim 17, wherein the force member is a ball bearing.